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THE GENESEE FARMER.

SATURDAY, JULY 30, 1836.

Lime as a Manure.

For a copy of the "Essay on the use of lime as a manure, by J. Puvis," we are indebted to James Wadsworth, Esq. of Geneseo, at whose request it appears the Introduction was written by Professor Renwick of Columbia College; the translation of the "Essay" from the French was furnished by the able editor of the Farmer's Register; and we have to regret that particular circumstances have prevented us from giving it an earlier notice.

The Introduction is intended to explain to farmers who have not studied chemistry, the nature of the atmosphere, of the different kinds of soil, and of manures; and we think that its distinguished author has performed a very useful task. We take pleasure in presenting what follows on the superior importance of lime as a manure; and we hope that this additional testimony will strengthen and encourage those who are engaged in permanently improving their farms.

"Wet sand and plastic clay, and those soils to which they give their characters, possess the property of absorbing gases; but they have this in a very inferior degree to lime and its compounds. As the gases generated by the decomposition of vegetable and animal substances form a large part of the necessary food of plants, it is obvious that a soil which contains the *carbonate of lime, may retain and store them up for use,* while they will be lost in soils of a different character.

"Carbonate of lime may also be made a most important article in the preservation of the most valuable parts of putrescent manures, until they can be applied to the soil. In this way marl is applied to a great extent in China: the night soil of their numerous population is there formed into cakes like bricks, with marl, and thus loses its offensive smell; but when these are applied as manure to the land, they give out the gases again as they are required for the nourishment of plants. So also in Norfolk, the site for dunghills is prepared by a *layer* of marl which is incorporated with the manure, from time to time, and retains the gases which would otherwise be lost."

We should prefer a *covering* of marl or lime from time to time, as the gases generated in the dungheap, have a tendency to *ascend.*

If limestone which contains magnesia, could be cheaply pulverized without burning, it would in all cases be *mild;* and might be applied in much larger quantities without any danger of injuring living vegetables by its causticity. The method of applying *burnt* lime however, as now practiced in Pennsylvania, obviates most of the difficulties which formerly existed. It is *slacked* in large heaps, and then strewed over the pastures, where it speedily becomes *carbonated;* and one hundred bushels to the acre have been applied in this manner at one time without damage to the grass.

The chief matters contained in the following paragraph, also from the Introduction, were new to us:

"Lime slowly combines with the earth *silica,* and produces a compound very different in character from either. It is this, to cite a fact in proof of our statement, which gives the hardness and solidity to ancient mortar. The carbonate of lime will serve to form this compound; and thus, when it has had time to act upon sand, it renders a silicious soil more retentive of moisture; while if applied to clay, by combining with its silicious matter, it renders it more friable; and it is to the formation of this compound by slow degrees, that we are inclined to ascribe the valuable mechanical properties of loamy soils, and the gradual amelioration produced by the use of lime, marls, and shells, as a manure."

Though we do not controvert these statements, yet we should have been better prepared to believe in a combination between lime and silica, if some *direct* proof had been given. May not the hardness and solidity of ancient mortar, result from the lime's returning, when combined with carbonic acid, to its original hardness as it existed in the rock, without supposing any new combination with silica? If lime acts upon sand, so as to render it more retentive of moisture, must it not by combining, soften the sand, and produce the very reverse of what we observe in ancient mortar? and would not the lime, without any combination with the sand, render the soil more retentive of moisture, and also more friable? We suggest these inquiries, however, only for the purpose of promoting further investigation.

"Soils which contain clay," continues the same writer, "are often mixed with sand, or with an excess of silica in grains, which does not enter into the composition of the clay. Such a soil is less liable to form a tough crust than a pure clay, but it will require a very large proportion of sand to destroy this property altogether.

"Clay mixed with sandy soils renders them more retentive of moisture. Sand and clay have therefore been used as manures for each other; but it may reasonably be doubted whether all the advantage that has been anticipated by some from this process, can be realized, as such a mixture will be merely mechanical."

It has appeared to us that a given quantity of clay would go further in improving light sands, than the same quantity of sand would go in improving clayey soils. Indeed in field culture, the latter operation can hardly be looked to, as practicable to much extent; and it will be found more profitable to adapt the crop to the soil than to attempt such expensive improvements. In gardens however, where the culture is more perfect and more costly than in fields, and where the products on a given space are more valuable, —sand may be applied to heavy soils with great advantage. We speak the language of experience. The ground can be cultivated with much less labor; it is better adapted to the growth of garden vegetables; and it is more retentive of moisture in dry weather: for it neither bakes in the sun, which would seal up its absorbent powers; nor cracks to admit the heat and lay bare the roots, but freely admits the moisture to rise through it from below. On these advantages we made our estimate, and we have not been disappointed. We neither expected that any combination was to happen between the sand and clay, nor did we believe that fertility would be imparted to the soil through the agency of sand in any other manner.

The chief constituents of loamy soils are clay and sand, but many other things may enter into their composition without disguising these substances. Oxide of iron sometimes occurs in quantities sufficient to tinge the whole with brown, together with lime, a still more important ingredient, though less conspicuous. It may be doubted however, if all these materials taken from the rock, pulverized, and mixed together in any proportions, would constitute at once a good loam,—for the remains of vegetables appear to have no inconsiderable effect in modifying the character of soils.

In a succeeding number we intend to make some remarks on our French author.

The Horse Hoe.

The indifference manifested by many of our farmers as to the tools they work with, is most surprising. If they are good, or of the improved kind, they seem to consider it a lucky chance; if they are bad, or old fashioned, they jog on with them, only hitching on more team, and putting to it more strength. Nobody presumes to dispute the merits, or dispense with the services of the cast iron ploughs, now-a-days; yet we well remember they were looked upon with suspicion, and worked their way into use slowly. Improved implements in almost every branch of agricultural industry have followed the plough, although perhaps they have not in every instance received or deserved such complete success. There is one however which we have been surprised to find in so few hands, as from the experience of years we consider it deserving a place on every farm. This implement is the Cultivator, or Horse Hoe. Experience has shown that the troublesome precess of hilling most plants may with advantage be dispensed with, especially such as corn and potatoes, and that all the benefits derived from hoeing by hand, on clean ground, may be fully realized in the use of the cultivator, and with an expense of time and labor inconsiderable. Where it is necessary to use the hoe at all after the cultivator, it is only

in cutting out such few weeds as that could not reach without injury to the plants cultivated, or when desired, in placing small quantities of fresh earth around the growing crop. For stirring up the ground, rendering it loose and accessible to the influences of air and dews, and destroying weeds, the cultivator is unrivaled. In corn planted on lays, or turf turned over and rolled close, it may be used when the plough would disturb the turf, and do nearly as much hurt as good. The cultivator is a cheap implement, not liable to fail when well made, and if housed when not in use, as all tools should be, is very durable. Let those farmers who like a good thing, try the cultivator. G.

Stone Walls.

One of the most significant marks of farming improvement which greet the eye in most parts of our country, is the rapidity with which the half rotted basswood worm fences are giving way to stone walls. The zeal shown in this matter may be regarded as a token of good in two ways:—first, by substituting durable fences for those that are perishable, and thus enhancing the positive value of farms; and secondly, by clearing fields from the loose stones that encumbered them, and thus rendering them much easier to till, and more productive. The general custom we perceive is, to lay the stones into what is called half wall, or wall two and a half or three feet high, then place a long plole of some durable timber, such as chestnut or black ash, properly supported on the wall, then stake, and a single rail completes the fence. Some set posts in such a wall, and put on boards above the stones to a sufficient height. This makes a handsome fence, but from some little experience with both kinds, we think it less durable without repairs than the other, as winds acting on the boards and posts, rarely fail in a short time to loosen them, by throwing down or displacing the stones intended to confine them. There are but comparatively few farms on which good flat stones can be found, either loose on the surface or by quarrying, sufficient for the purpose of fencing, consequently small round ones are obliged to be worked to a great extent, rendering such walls more liable to be thrown down by frost or accident than they otherwise would be. Where such flat stones can be found, and in the limestone districts they principally abound, whole walls, thoroughly constructed, will in the end be found far the cheapest fences that can be devised. Experience has shown that where walls are built of such stone as renders them liable to injury from frosts, that those which are constructed north and south stand longer than those built east and west. The reason of this is plain. If the whole wall is equally lifted by the frost of the winter, that side which is thawed first will settle first, and the balance of the wall will thus be destroyed. The earliest thawing will of course take place on the south side, and walls exposed to this action of sun and frost most generally fail. Those walls built north and south are exposed to an action more equal in its effects, and usually are more durable. To guard against the action of frost as much as possible, walls in all cases should have a furrow run by their side, and turned against the wall, that the water may, as far as practicable, be kept from standing under it, and thus unequally softening the ground. In building walls, admitting the possibility of an occasional failure, the farmer has one great consolation: the materials do not rot—when once on the spot they remain where they are wanted, and if they sometimes tumble down, they can be built up again. G.

Farmers' and Gardeners' Work.

On the use of Lime for Preserving Health.—Lime is an antidote to contagion, a preservative against infection, and as a means of purifying sinks, vaults, &c. is one of the most useful of substances. By making proper application of this cheap, but powerful agent, together with a due attention to cleanliness and ventilation, the air in jails, hospitals, ships, &c. may be rendered comparatively sweet and salubrious. A quantity of lime, while hot and quick, scattered every day or two into the vaults of back houses, and other repositories of offensive matter, is indispensable as well to health as to cleanliness.

We should think it a very serious matter if we were obliged to eat tainted provisions and drink filthy water; and yet many people appear to be very well satisfied, when at every breath, they take a substance into their lungs which is not only nauseous but poisonous. This inconvenience, however, they submit to, when the remedy is cheap, and almost always to be obtained when and where the evil exists.

The walls of cellars, dairy rooms, sitting rooms, and indeed of all apartments, much occupied by human beings, should be well coated with good caustic lime white wash, at least once a year. The time of its application may as well be just before the heat of summer becomes oppressive. In London, says an English writer, a society is organized for the "Cure and Prevention of Contagious Fevers in the Metropolis," and they have appropriated a certain sum of money for purifying the tainted habitations of the poor. Their method consists simply in washing the walls of the room with hot lime, which renders the rooms to which the white wash is applied, perfectly sweet and wholesome. In the villages of New-England, the practice of white washing the walls of apartments is common—in cities it is not so usual. The walls of the apartments of our more opulent citizens are usually decorated with costly paper, or something else, which answers as a receptacle for foul air, and which would be spoiled by white washing; and if they prefer finery to health, they must enjoy their own whims, and pay their own Doctor's bills.

Harvesting Rye.—The following rules for cutting and curing Rye are from an old Albany paper. They appear to us to be judicious, and may furnish hints to some young farmer.

Rye ought to be cut as soon as possible after the milk is out of the berry or kernel; then rake, bind in small sheaves, and shock in the following manner: Set up four, five, or six sheaves together, according to their bulk; then place on a cap sheaf

In this position the shocks may stand till perfectly dry; then secure them in barracks or barn, but never mow them on hay. Grain mowed on hay will receive more or less must, which is deleterious to animals of every kind.

Rye cut and secured in this manner is worth nearly double the price of that cut in the common way; the straw will make better fodder than clover, unless the clover be cut when very green, and peculiarly attended to in curing; the berry of rye will fill in a plump state, and the flour will afford as good bread as we can commonly obtain from wheat.

I have known numbers of persons who were deceived when eating rye bread from rye thus managed, and supposed the bread made of wheaten flour.

Weeds.—If you have a stock of weeds on your premises it may be worth the trouble to convert them to some useful purpose. We would not wish you in haying or harvesting to devote more time to saving weeds than may be compatible with correct economy. But it may be the case, that the pig weed, the purslane, &c. of your garden will make food for swine, and be worth your attention. Some bury weeds in trenches between rows of plants, and they make good articles in composts. In the latter case it may be well to sift a little quick lime over your heaps of weeds, and then cover them with a layer of the richest soil you can conveniently obtain to receive the fertilizing gases given out by fermentation. A good husbandman permits as few vegetable and animal substances as possible to decay and putrefy in the open air, but covers them with earth and quick lime if he has it, thus preserving his health by the same means by which he fertilizes his grounds.—*N. E. Farmer.*

Dairy Hints.—Pasturage.

The quantity of milk varies much, according to the kind of pasture used. In England, where the dairies are large, "the use of the milk, whether for butter or cheese, is generally regulated by the pastures the cows feed in. The pasture grounds in England are large in proportion to the dairies, which enables them to make such selections. For butter, a choice is made of old grass lands, that are tolerably rich and fertile; for cheese those that have been more recently converted into the state of sward, and are of a more cool, as well as less rich soil." Long experience in England has proved, that the former pastures "afford milk that abounds more in the *oily material* or cream," while the latter, which have been less time in that state, are of a more cold nature, are more productive of such milk as have the *caseous* matter in a larger proportion than cream." It is also said, that the butter made from the milk of cows fed on old pastures, "is easier made, is more firm and of a better quality."

The situation of our country will not admit of this arrangement, as the two objects of butter and cheese are made on the same farm,—some useful hints may be taken from the above. There are few farms that have not a variety of soils on it. The hilly and more elevated, is more favorable to white clover, and should be selected for pasture land. It is however worthy of consideration, whether pastures of more luxurious growth, with a full feed on them, may not support more cows on the same acres, and give more milk, though less of the *oily* material in it. It is recommended in all kinds of pastures to use small enclosures, and shift the cows frequently. Objections will be made to the expense, but if a farmer will convert the value of a cow or more into fences, to divide his pastures, inclose his poorest mowing, and keep his cows out of what he retains for mowing, he will make more hay from fewer acres, increase his butter and cheese, from his cows having better feed, and will from the increase be able to replace the cows sold, and add to their number.

The writer of this was knowing to the following fact in England. He visited a gentleman whose grounds were limited, but had an extensive fruit garden, and used much cream with his fruit. His situation was about two miles from Birmingham. He kept two cows, the best he could purchase, on two acres of pasture. The two acres were divided into eight squares, and the cows when they were milked were shifted from the square they were in to the next. The two cows furnished the family with all the butter and cream that was used, and every Saturday the dairy women usually carried 14 lbs. of butter to market. If these two acres had not been divided they could not have supported these cows in a condition to give half what was produced.

Feeding of Cows.

The greatest care should be taken to keep cows in good condition at all times. When cows are lean at the period of calving, no after management will afford for that season near the proportion of milk they would if better kept during the winter, and the quality would be inferior. such cows in good feed would first gain flesh, before they would give the owner the milk that a better condition would have furnished. Food

of the most nourishing and succulent kinds should be regularly given in suitable proportions; in the cold and inclement months, the animal should be kept warm and well supplied with pure water. Carding and cleansing will promote the general health, and make them give milk more freely. Mangel wurtzel and the ruta baga are so easily raised, that a farmer, with labor on land well prepared, might with ease raise sufficient for the purpose. The former will secure milk in the greatest quantity, the latter does not increase within the same proportion, but improves the condition more.

DRYING COWS BEFORE CALVING.

From the best English authorities, "where cows are well kept there is no injury in milking cows within a week or two of their calving, and it is probable, that the longer the milking is continued, the more free the cows will be from indurations and other affections of the udder." And it is further stated, "that where only one or two cows are kept for the supply of a family, by good feeding they may be continued in milk to near the time of calving, without any bad consequences. We have tried this method several times, without perceiving the least possible injury to arise from it." The writer's practice and experience confirms this.

REARING OF CALVES.

The best cow calves are to be selected from such cows as are most quiet, give the richest milk, are the most hardy, and the best adapted in size to the comparative goodness of the farm.

There are various ways of rearing calves. In England, as well as in this country, many prefer that calves should run with the cows from 3 to 6 months; others let calves suck twice a day—in such case the calves should take the first or thinnest part, which is the least liable to injure, by producing and cowering; others give to the calf new milk to drink for four weeks or a longer period; at the end of this time, skim milk is substituted, with a mixture of farinaceous food. In addition hay or grass is given, as early as the calf can eat it.

The following mode of rearing calves has been practiced by the writer with great success. The young animals so reared, have usually gained in growth a year in advance. The calf is allowed to suck its mother about two days, as the first milk is well fitted to cleanse the calf, and secure a full flow of milk in the cow. On the third day the mother's milk is given the calf to drink, and so continued freely for two or three weeks, till the calf begins to fill out, when the following food is substituted. A gill of flax seed, for each calf, is boiled in water in the evening, and half the quantity given next morning and evening to the calves, adding to each mess from a pint to a quart of scalded oat meal, according to the size and condition of the calf, and about two quarts of skim milk. In five or six weeks water may be substituted, provided the calves can have plenty of green food by mowing or feeding. The mess should be stirred up while the calves are drinking. The pearing of the Swedish turnep or mangel wurtzel are given in the fall, and great care is taken the two first winters to give the best of hay, and a liberal supply of roots, Swedish turneps, mangel wurtzel, carrots, or potatoes, or oil cake—and in summer the best of grass in pasture. After this the young stock will keep in good condition without extra keeping.

By early attention to young stock, their growth and condition fits them for an early profitable sale, or for the market at an extra price.

The writer has killed two heifers of four years old each, that weighed when killed near nine hundred each.

A bull calf of superior shape, and intended to be shipped to Jamaica, was allowed on an average nine quarts per day of new milk for fifty days—and then treated as before stated. At one year and eleven days it weighed seven hundred and thirty-six pounds. It is very important that the young animals should be kept clean, well carded, and regularly watered with pure water. —*Maine Farmer.*

From the Maine Farmer.

Butter.

Mr. Holmes—As great improvements may be made in the quality as well as quantity of butter from the same milk, by some variation from the common mode of managing milk, I have made some extracts from a valuable English publication in my possession, entitled a Complete History of Modern Agriculture, by R. W. Dickson, M. D.

1*st Exp.* Several large tea-cups, exactly similar in size and shape, were filled at regular intervals, the last being filled up with the dregs of the milk. From some cows the quantity of cream obtained from the last drawn cup, exceeded that from the first in the proportion of 16 to 1.

2d. The difference in quality was greater than the difference in quantity. In the first cup the cream was a thin tough film, and very white, but in the last of a thick buternaceous consistence, and of a glowing richness of color, that no other kind of cream is found to possess.

3d. The difference in the quality of the milk was perhaps still greater than either, in respect to the quantity or the quality of the cream. In the first cup it was a thin bluish liquid, as if a large portion of water had been mixed with ordinary milk; while in the last cup it was of a thick consistence and yellow color, more resembling cream than milk both in taste and appearance.

4th. The cream which first rises is richer in quality and greater in quantity than what rises in a second equal portion of time, and the like difference in a third space of time, and so on.

5th. Thick milk always throws up a smaller portion of the cream it actually contains to the surface, than milk which is thinner, but the cream is of a richer quality; and if water is added to that thick milk, it will afford a considerable greater quantity of cream than it would have done if allowed to remain pure; but the quality at the same time is greatly debased.

6th. Milk which is put into a pail or any other vessel and carried in it any distance so as to be agitated, and in part cooled before it is put into the milk-pans to settle for cream, never throws up so much nor so rich cream as if the same milk had been put into the milk-pans directly after it was milked.

From the above it follows,

1st. That cows should be milked as near the dairy as possible, and in addition to its preventing the agitation and cooling of the milk, if pastures are near the dairy the cows are not heated by driving.

2d. It is highly injurious to put the milk in large dairies into one vessel as it is milked, to remain there until the cows are milked before it is put into the milk-pans, and for an additional reason to the agitation and cooling, that it mixes the bad with the good milk.

3d. The first drawn milk should be kept separate from the last drawn, as the quality of the butter will be improved in proportion to the last drawn milk that is retained.

4th. If the quality is only alluded to, it is not only necessary to separate the first from the last drawn milk, but also to take nothing but the cream that is *first* separated from the best milk. The remainder of the milk may be either employed in making sweet milk cheeses, or it may be allowed to stand to throw up cream for making butter of an inferior quality.

5th. According to the preceding, the *best* butter could only be made with economy in those dairies where the manufacture of cheeses is the principal object. In such dairies a small portion of the last drawn milk should be set apart for butter, all the rest may be made into cheeses while it is yet warm from the cow and perfectly sweet, and if only that portion of cream which rises during the three or four hours after the milking is to be reserved for butter, the rich milk which is left, after the cream is separated, being still perfectly sweet, may be converted into cheese with as great advantage nearly as the new-milked milk itself.

6th. As purchasers would not be found wanting to buy the fresh butter made in the manner above pointed out, as the price of that would indemnify the farmer for his trouble in making it. These hints are thrown up merely to satisfy the curious in what way butter possessing this superior degree of excellence may be obtained; but for the ordinary market, the writer is satisfied, from experience and extentive observation, that if in general about the first drawn half of the milk be separated at each milking, and the remainder only set up for producing cream, and if that milk be allowed to stand to throw up the whole of its cream, even till it begins sensibly to taste sourish, and if that cream is afterwards carefully managed, the butter thus obtained will be of a quality greatly superior to what can usually be obtained at market, and its quantity not considerably less than if the whole of milk had been treated alike. This therefore is the practice that is thought most likely to suit the frugal farmer, as his butter, though of a superior quality, could be offered at a price that would always insure it a rapid sale.

From the preceding the following course is recommended to farmers, particularly those who have small dairies. Let a quantity of milk from the first drawing, sufficient for family use, including the supply of cream, be taken from the cows on a farm, and set the remainder for cream to make butter for the market. It will take less time to convert such cream into butter, and the butter from such cream will be of a superior quality.

To satisfy myself of the difference in the milk in the first and last drawn from the same cow, I had a tumbler nearly filled with first drawn milk, taking about an equal quantity from each teat—a second tumbler was then filled with about an equal quantity, if any thing a little of the last drawing, taking about an equal quantity from each teat. The result was, scarcely any cream from the first, and it could not be well separated from the milk. The *cream* did not exceed in weight 30 grains, and hardly any yellow particles in the cream—from the last drawing, there was 339 grains of cream, yellow and thick. The milk stood in the tumblers about 10 hours.

Hallowell, June 17, 1836. C. V.

Health.

We often hear people condemn certain parts of the country as unhealthy, and therefore object to residing therein. All new settled countries are particularly liable to have this objection urged against them, which, were the first settlers more cautious in selecting sites for their buildings, would perhaps be less true. The first settlers, without any due regard to the healthiness of the situation, often locate in the very vicinity of objects the most obnoxious to health, that engenders disease and destroys health. Among these may be specified:

"*Marshes*, and all permanent receptacles of decaying vegetable matter.

Grounds which are periodically overflowed.

Grounds which are excessively wet from ordinary rains during a portion of every year, and which exhibit extensive evaporation.

Ponds which are drained in the course of the summer and autumn; and other

Localities which are occasionally subject to great changes in their condition, and in their influence on the atmosphere."

The putrid, poisonous vapors which continually accumulate in such places from decaying vegetable or animal matter, should by all means prevent persons from building in their immediate vicinity. These vapors being heavier than common atmospheric air, never rise to any considerable elevation, unless the air is surcharged with them to an alarming degree. Hence a building being placed on an eminence, and a good degree of caution being used, tolerably good health may be enjoyed.

Artificial ponds, where timbers and other vegetable matter is continually undergoing decomposition, may be compared to a vast laberatory, where the most noxious vapors are continually generated.—*Mechanics' Messenger.*

COMMUNICATIONS.

The Dairy—its Profits.

BY W. G.

The first object of a farmer in cultivating the soil is profit; and next to this is the desire of securing the first with as little expenditure of labor and means as is possible. To do this the quality of the soil, its condition, and the size of the farm, must be taken into consideration. Its very situation will in a great measure determine the first; its condition will of course be depending on the judicious or injudicious treatment it has received; and as to number of acres, it is evident that without a certain quantity of them, some kinds of farming, such as grain raising, or wool growing, cannot be profitably undertaken. Perhaps there is no one branch of farming that can be so readily adapted to all farms, great or small, as the dairy; and while it is clear that to raise grain extensively a large farm must be required, and much labor and money expended, a medium farm, one of eighty or a hundred acres will be found best calculated for the dairy, as the hiring of assistants can usually be dispensed with in such cases. For a man with but forty acres to attempt the raising of grain for sale, and at the same time keep the necessary horses, cows and sheep required to cultivate the farm, and supply the family, would be an unprofitable undertaking; but on such a farm a dairy may be kept that will be a source of great profit, when compared with the capital invested.

To make this matter clear, it may be best to make a few estimates, in all cases getting as near well established results as possible, and where any thing must be left to conjecture, always being careful to err on the safe side of the calculation. A farmer wishes to commence a dairy with ten *good* cows, not herd book stock, but good native animals. The price of cows for several years past in the spring of the year has varied from 18 to 22 dollars—we will call it 20—thus making the cost of his cows 200 dollars. For pasturing cows it is generally estimated that two acres to each one will be required; and it may be so as pastures are generally laid down, but where the turf is clean and close and the soil in good heart, we are confident something less will be sufficient to give them every advantage. The interest on the twenty acres required, for six months, the time the dairy will be in operation, at 30 dollars per acre, will be 21 dollars. The interest on the money invested in cows, will be 7 dollars. A dairy maid, if one is required, for 6 months, at a dollar per week, twenty six dollars. The expense will stand thus:

10 cows, at $20 each,	$200 00
Interest on do. 6 months,	7 00
Interest on 2 acres to each cow,	21 00
Dairy maid 6 months,	26 00
Total expense,	$254 80

If a dairy is a cheese dairy, much will be depending as to the receipts, on the qualities of the milk produced, and the skill shown in making. The quantity of cheese produced, varies much in different dairies, and in estimating profits a medium rate must be selected. Mr. Brown, of Otsego county, made from thirteen cows 4700 lbs. of cheese, or 361 lbs. to each cow. Mr. E. Perkins, of Trenton, Oneida county, from 78 cows, made 32,000 lbs., or 410 lbs. to each cow; and in the same communication he states, that the dairies in that cheese making region vary from 200 to 500 lbs. of cheese to a cow. Some experience in the dairy business, and an acquaintance with a dairy district, leads us to suppose that 350 lbs. to each cow would not be an extravagant estimate. The average price of good cheese when sufficiently ripe for sale, for several years past, has not been less than 8 cents per lb., and many dairies find their sales have averaged 9 or $9,50 per cwt. Making our estimate at 8 cents per lb., the receipts of a dairy of ten cows would stand as follows:

3500 lbs. cheese, 8 cts. per lb.	$280 00
100 lbs. butter, 15 cts. per lb	15 00
Whey for swine, $2 per cow,	20 00
	$315 00

Making the receipts from each cow for six months $31,50—or if we deduct the butter as being most of it necessary in the dairy room, it will leave the sum of 30 dollars per cow. In some of the best dairy districts of New England, it has been common to dispose of the cows to drovers after the dairy season has closed, but little feeding being generally required to make them good beef. Cows are not as high in the fall as in the spring, by about 20 per cent., and if our farmer determines to sell his cows in preference to keeping them over the winter, they will bring him about 160 dollars. This sum must be added to the receipt of the year, making a total of 475 dollars. The whole will then stand thus:

Receipts,	$475 00
Expenses,	254 00
	$221 00

Giving to the farmer a clear profit of eleven dollars upon each of the twenty acres used for the dairy. It must be remarked, however, that to produce this result, the cows must be in good heart and tolerable order on the first of May, and have good feed for the summer. Cows that "shirked" through the winter, and pasture on daisies, johnswort, and thistles, through the summer, will not reach the above mark, and the owners may think themselves fortunate if the "summing up" should not show a balance the other way.

If the dairy is to be devoted to making butter, there will be but little difference in the result; though if conducted under favorable circumstances, we think making butter rather more profitable than cheese. Many persons, however, connected with the dairy, think otherwise, and the odds at any rate cannot be very great. To make butter through the summer, the dairy must be so situated and constructed, that a uniform proper temperature may be maintained, as it is well known if the temperature is too low, the cream will be so long in rising as to become bitter; and if too high, as is usually the case in the summer, the milk sours before the cream has time to separate, by which much of the cream is lost, and the butter rendered of an inferior quality. In making butter, more is depending on the quality and richness of the milk, than in making cheese, as some cows from the same quantity of milk will give double the amount of cream that others will; and hence the selection of animals must be made with reference to this very point. This fact accounts for the discrepancy shown in the quantity of butter produced in different dairies, and the varying estimates consequently made of the butter each cow will produce in a season. There are some cows that will make a pound of butter a day for seven or eight months, with good keeping, and there are others, that if they give half a pound a day may be considered as doing well.

The breed of cows has a great influence in determining the quantity or quality of the milk. The Earl of Chesterfield a short time since instituted a series of experiments on some favorite cows of different breeds, the result of which was as follows: "In the height of the season the

	Qts. milk.	Oz. butter.
Holderness gave per day,	29	38½
Long Horn,	19	25
Alderney,	19	25
Devonshire,	17	28
Ayrshire,	20	34"

That there are few if any cows of our native breeds that will approach this quantity of milk or butter, most must be willing to admit: indeed, an able writer on cattle in the Farmer, thinks that few dairies, or cows, in this country, will average more than from 160 to 170 pounds a year. From some experiments we have made, and the reports of some few ordinary dairies for butter, we are disposed to dissent from this writer, and believe that with ordinary care in the selection of cows and the management of the dairy, 200 lbs. may easily be reached. Mr. Curtis, of Marblehead, from common cows and ordinary pasture, for three years, made butter as follows:

1828—8 cows,	1272 lbs. butter.
1829—7 "	1175 "
1830—6 "	1090 "

Which last is at the rate of 181 pounds to a cow, and that under unfavorable circumstances to make the most of the milk. We know of cows that produce a pound a day for at least three months in the hight of the season, and that without extra care or feed; still, a native cow, to do this, must be good. For three years past, butter, taking the whole season, will average 15 cts. per lb., and calling the amount produced from a cow 200 lbs., the balance would stand thus:

Butter from 10 cows, 2,000 lbs.	$300 00
Skimmed milk, $3 per cow,	30 00
	$330 00

Making a difference of fifteen dollars in favor of butter over cheese making. Where the milk is churned new from the cows, the quantity of butter will of course be greater, but we have never made it in that way, and have no authentic information by which the difference, and of course the profits, can be correctly estimated.

Various estimates have been made of the expense of getting in a crop of wheat or corn; but where wheat is put in after a summer fallow, as is usually the case, the expense of the ploughings, harrowings, seed, interest, and wear of implements and the land, cannot be estimated at less than ten dollars per acre. Admitting the average crop of wheat to be twenty bushels per acre, which must, taking the whole, be considered liberal, and a profit of ten dollars per acre, wheat at one dollar per bushel, which may be considered the average price, will be the result. It would be easy to make a list of the items of

expense and profit, but there can be no necessity for it here, as every wheat grower can make the estimate for himself, if he needs to be convinced that the above estimate is not far from the truth. If the crop to be compared is one of corn, estimates made with great care by Judge Buel, Clark, and others, show that in ordinary cases the expense of a crop, including labor, seed, use of land, &c. is at least fifteen dollars per acre. The profits of a corn crop are more variable in our latitude than most otbers, sometimes running very high, and at others being literally nothing; and we believe that if the average estimate of profit on an acre of corn is put the same as wheat, it is as high as the experience of the farming community will justify.

If the above calculations are correct—and if they are not we should be happy to have the errors pointed out, by any one practically acquainted with the subject—then the difference in profit per acre between the dairyman and the wheat grower, is not so much in favor of the latter as has been generally supposed. It may however be said, that the practice of disposing of the cows by the dairyman after the season is closed, would in the end be suicidal to the business if generally adopted, and hence as a general rule the cows must be kept over the winter, making it necessary to deduct from the profits the expense of keeping through the winter. This may be admitted, and the result would then be as follows: A cow will eat a ton and a half of hay in the winter, which at the average price of eight dollars a ton, would be twelve dollars for keeping; rather exceeding, if there is any difference, the neat profit on each cow the first season. It must be remembered, however, that if the produce of a good cow will pay for herself and her winter's keeping the first season, then the dairyman enters the field on the second year with an unencumbered capital; the cows are paid for, and the entire amount of their produce, with the trifling deductions above stated, are to be counted as profit. Let our dairy counties look at this matter carefully—it is well worth their attention.

W. G.

Farmer B. or the Man who works it Right.

BY A TRAVELER.

It was during the same tour in which I met with farmer A. whose system and its results I have given in a former number of this journal, that I made an acquaintance with another individual who I shall call farmer B. and if I could convey to the readers of the Farmer but a small degree of the pleasure, which a sight of what industry and good order can accomplish, has afforded me in the remembrance of the incidents, I should feel myself amply rewarded.

Mr. B. as well as Mr. A. was a native of one of the eastern states, and when he removed to western New-York, he took care to secure a farm containing as many natural advantages as possible, though in this respect I think his farm was inferior to farmer A. When he had made his choice, however, he considered it as made for life, and immediately set himself at work to effect a thorough and permanent arrangement of his premises, previous to the course of improvement he intended to adopt. A large farm and great wealth formed no part of his plans—a farm of ordinary size, contentment and competence, were the extent of his ambition, and these things he speedily accomplished.

Farmer B.'s house is one of the most perfect specimens of that picture of rural neatness, elegance and comfort, an English cottage, that I have seen in this country. Standing at a little distance from the public highway, unassuming in its altitude and dimensions, embowered in trees, and half hidden in vines and shrubbery, it seems as you approach it the chosen retreat of farming taste and comfort. The neatly painted pickets of the different enclosures were as firm and perfect as if put on but yesterday. The gates to the different avenues were ready for use without creaking or grating. The avenues themselves were well graveled, hard and clean—the grass was cut close, and free from all dirt or rubbish, and it was evident the work done here had not been injuriously subtracted from labor required elsewhere; every thing had been done in order and in time, and a glance showed that the whole secret consisted in these two words—good management.

On entering the house, as might have been expected, the same order and neatness was found pervading every spot. Mrs. B. was a middle aged, sensible woman, a good farmer's wife, without the least effort at display or ostentation, but greeting the stranger with a welcome and frankness that gave additional value to whatever obligation she conferred. Two daughters, the one eight, and the other perhaps fifteen, with their mother, constituted the female part of the family. I know of no sight on earth to me more pleasing, or so conducive of delightful emotions, as a beautiful little girl, such as the playful Mary B. They are the rose buds of human nature, —pure themselves, and ignorant of wrong in others, they only delight in seeing others happy, —overflowing with affection which they have not yet learned to hoard for a single favored individual, and unacquainted with those deeper and mysterious influences which startle the young girl, and mantle her cheek with blushes, when she first acknowledges their existence and power; there is a fearlessness and frankness about the innocent creatures, difficult to retain in after life, but which, when combined with purity of heart, forms the great charm of female character.

Farmer B. was at home when I arrived, and as we walked over his well managed farm, he seemed to feel a rational pleasure in recounting the steps by which he had brought it to such a state of fertility and productiveness, and of which ample proof was found in the fact, that he had that day received six hundred dollars for a crop of wheat grown on twenty acres. Two of his eldest sons were at work in the field, the youngest being at school; Mr. B. remarking, that as he intended his children for farmers, or the wives of farmers, they were kept at school until they were able to aid in the business of the farm, the girls by assisting their mother, and the boys in the field, when the summer schooling was discontinued, but resumed in the winter, or at an academy, as long as was desirable—it being his opinion, that a due regard to health, and an ample acquaintance with the operations of husbandry, demanded that course. Mr. B. said he was a strict utilitarian, and while he admitted as useful to his children, and required in their course of studies, much that others would consider as unnecessary, he would not allow them to consume their time upon courses purely ornamental, and for which in all probability they would find little or no use in their after sphere of active life. Farmer B. was not a visionary or enthusiast in farming; but he loved experiment, and never rejected a proposition because it was new—it was enough that it commended itself to his reason, and was able to bear the close and rigid scrutiny to which he was accustomed to submit all farming speculations.

There are few passages in life more delightful than an evening spent in such a family. Intelligent, amiable, and unaffected in their manners, their cheerful courtesy makes one feel at home, and places him at once on one of those green islands that are here and there found in the needlessly broad desert of human life. In the room to which we were introduced for the evening, were a fire, lamps, sofa, carpet, chairs, and what I particularly noticed, a table on which lay one or two of the latest newspapers, a magazine or review, and an agricultural journal of established celebrity. There was an assortment of books, not large, but well selected, consisting of voyages, travels, history, and a number of theological volumes, with one of the popular commentators on the Bible. The family were soon grouped around, and all, even to little Mary, were busy, the boys with their books, the girls with their sewing.

"You will excuse us," said Mr. B. to me, "but we have in our family long since adopted a practice which we do not like to relinquish: for one hour in the evening, after the usual labors of the day are closed, some one of us, and we intend to do it in rotation, reads aloud for the benefit of the others, and as we have just received a work more than usually interesting, my children would feel deprived of a privilege were this custom omitted this evening." I of course begged I might not be a hindrance to their happiness, and young Mellen, the second son, a lad of sixteen, was called upon to read. John Neal, I remember, says that he knew of but three good readers in the United States, and spite of his modesty, I presume he would include himself in that number; certain it is, the number is but few who enter into the spirit of an author, and understand giving his words and sentiments their proper value and effect. Mellen however far exceeded my expectations, and when he named Lamartine's Pilgrimage to the Holy Land, as the work they were reading, I was not surprised they were anxious for its continuation; and when the hour had expired, so deeply interested had we all become in the narration of the eloquent Frenchman, that by an unanimous vote, the book was handed to the eldest daughter, and another hour glided quickly away in listening to her sweet toned voice, and the glowing thoughts of the poetic writer. After what I had seen and heard, I was not surprised to find Mr. B. a man of deep religious feeling, or disposed to wonder at the profound feeling of humility and thankfulness with which he closed the evening by commending us all to the care of a beneficent Creator.

After the children had retired, I could not help congratulating Mr. B. on the excellent course he had adopted in his family of accumulating knowledge, and the beautiful effect its influence already exercised. It is said, he remarked in reply, that farmers, or their children, do not have as much time to read as the children of professional men or mechanics, and it may be partly true, yet I am convinced the plea which farmers so often urge as an excuse for their ignorance, that they have no time to read, arises more frequently from disinclination to read, than from any other cause. Few men are sensible how many valuable books are gone through in a year by the reading of one hour a day; and by having them read aloud in the family, all are interested, and all instructed. As I have accustomed my children to ask questions on what is read, and to the correcting of errors in the reading, the attention even of the youngest rarely flags during the hour.

I went to bed reflecting on the contrast between farmers A. and B. and the different probable results their influence and that of their families would have on their own happiness, and that of the society around them. With farmer A. every thing was at sevens and sixes; nothing in doors or out, in the house or on the farm, as it should be, or as it ought to have been; and this state of things evidently had its effect on the minds of the family, rendering them morose, ill-tempered, I may almost say, immoral; as well as continually restless and dissatisfied with every thing around them, without inducing the necessary steps to cure the evils of which they were so ready to complain. On the contrary, at farmer B.'s every thing moved like clock-work, and it was evident the success as a farmer arose from having his work done in season, and from "having a place for every thing, and every thing in its place." Its effect on the family we have seen, and one thing is certain—Mr. B. will not go to the west in search of competence or happiness.

A Traveler.

From the Advocate of Science.

Geology.

By H. Gibbons, M. D. Wilmington, Del.

So far from being that abstract and speculative science which those who are ignorant of it often suppose it to be, geology is full of useful application to the common pursuits of life. The agriculturist, the miner, the architect—every employment that has a direct relation to the materials of our globe, derives advantage from geological knowledge. It cannot be otherwise, when geology involves an acquaintance with all the substances which enter into composition of the accessible portions of the earth.

But the most striking and the most beautiful application of this science to useful practical purposes, depends on the principles of stratification hereafter to be explained. For the present I will only remark, that the superficial portion of our planet is found to be stratified, or composed of distinct strata of various materials; and that these strata are proved to occupy a uniform position relative to each other.

Mineral salt occurs in one of these strata associated with gypsum or plaster of Paris. Where one of these valuable minerals is found, the presence of the other may therefore be suspected. But the stratum containing them is superior in its situation to chrystalized limestone, to slate and to granite. It follows, that wherever the exposed surface of the earth consists of either of those rocks, gypsum and rock salt do not exist; and a search for them would therefore be fruitless. In searching for coal and other mineral productions, similar principles are called into application, and prove a valuable aid to the miner. For want of the knowledge of a few of these elementary principles of geology, much time and labor and money have been wasted in attempting to discover substances of value in situations where they could not exist.

But I am far from resting the claims of this or any other branch of science upon the applicability of its truths and principles to the useful arts. Important as may be the various departments of study, when regarded in that point of view, it is beneath the dignity of the human mind to estimate their value by such a standard. If the mind, and not the purse, makes the man, it follows that the merits of a science depend principally on its influence upon the intellect. Viewed in this light, geology assumes an exalted station. No scientific pursuit confers on the student superior advantages.

It awakens a disposition to observe and establish facts. It exercises and strengthens the powers of reflection. It points the understanding constantly and forcibly to the beautiful relations of cause and effect—effects as simple and as grand, as the causes that produced them are palpable and sublime.

Having made these preliminary remarks, I will now proceed to the subjects. It is scarcely necessary to say, that my essays will be written with a view to accommodate them to those who are entirely uninformed with respect to the science of which they treat.

Definition and derivation of the term.—The term Geology is derived from two Greek words, *ge*, the earth, and *logos*, word or science, which treats of the structure of our globe. *Mineralogy* refers to the individual portions or substances which compose the earth, without any regard to the general arrangement of the mass. But *Geology* confines itself principally to an examination of the earth, considering it as composed of dissimilar parts, arranged in particular order. The former may be studied alone; but the latter involves some knowledge of the former.

General idea of the earth's structure.—Those who are totally unacquainted with geology, would be apt to think the earth a body homogeneous in its structure, or constructed of stones, clay and water, intermingled as it were at hazard. But this view is very erroneous. It is true, we have no knowledge, except of the superficial parts forming the crust of our planet. This crest, however, is ascertained to consist of a series of layers or strata, some of which almost surround the globe. In this respect it is often compared to an onion, whose coats represent the strata. These strata are not, like the onion, extended in an even continuous manner over the whole circumference of the earth, but are frequently broken or interrupted by mountains, or by collections of water. Sometimes one of the strata *runs out*, or terminates abruptly, without any evident cause. Frequently one district of country contains a stratum of a peculiar nature, not found elsewhere. When the extent of such a layer is very limited, it is called a *bed*.

To Dairy Women.

We have recently witnessed a method of making cheese, which, although not of recent invention, may be new to many dairy women within the circulation of our paper. It is something after the manner adopted in the manufacture of pine-apple cheese. The curd is prepared as in the ordinary way, and put in a piece of coarse canvass, a portion of the threads of which have been drawn out to make it open, and allow the whey to escape freely. It is then hung up in the cheese-room, and requires no farther attention, as the cheese fly will not attack it, and it is not subject to mold. We have the authority of those who have tested the experiment, in saying that this method is a great saving of labor; the cheese matures sooner, and is of better quality than if dressed. The whey is allowed to drain off, and it will do so effectually, instead of the violent pressing, which all dairy women have observed forces out a portion of what should remain to and substance and richness to the cheese. The bag to contain the cheese should be made in the form of a beeve's bladder. It is sometimes knit in the manner of a fish net, with small meshes; but the most ready method is, to take a piece of coarse linen, and pull out three or four threads alternately, both of warp and filling, and put it in the proper shape.—*Niagara Democrat.*

Recipe for the Cure of Bots in a Horse.

Mr. Holmes—When a horse has bots, it may often be known by his biting his sides; when he has many, they often throw him into great pain, and he lays down, rolls, and if not cured soon, dies. When it is believed that a horse has the bots, by the above symptoms, give a pint of sweetened milk; which the bots are fond of, and they will let go their hold on the horse, and feast on the milk. Immediately give the horse a small quantity of oats, or other provender, in which put two thirds of a common fig of tobacco pulverized. If he refuses the provender thus mixed, steep the same quantity of tobacco in a pint of boiling water, or warm water, until the strength is out, as we say, then put in enough cold water so that the whole will fill a common *junk bottle*, and turn it into the horse. When it reaches the bots it kills them as all will believe, who have ever spit tobacco juice on a worm, or similar insect. The horse in less than twenty hours will void all his bots; there is no mistake in this, though no patent has been obtained. The writer would not have it tried on an old poor horse, in the fall or first of winter, for he would certainly recover, to the damage of his owner. If one worth curing is affected with bots, and the symptoms are severe, never stop for the milk, but in with the tobacco—this is the *kill all.*—*Maine Far.*

To cure the swelling of the throat in Hogs.

In order to contribute to the usefulness of your valuable periodical, and to inform the public what I find from experience to be an infallible cure for a certain disease in hogs, viz. the swelling of the throat, I herewith send you a receipt for the disease with a desire that you publish the same in your work if you deem it of any import, and the same meets your approbation.

Take of molasses one half pint and a table spoon full of hogs' lard—to this add of brimstone a piece an inch in length. Melt it over the fire, and when cold or in a liquid state, drench the hog with it; and nine times out of ten it will be found to have the desired effect. My hogs were affected with this disease during the past year, and I found the above to be effective when all things else failed.—*Farmers' Register.*

Note by the Editor of the Farmer & Gardener.—We have no doubt as to the efficacy of the above prescription, but the trouble of melting the brimstone can just as well be avoided, by substituting flower of sulphur for the *roll* brimstone, and we have no question that if a tea-spoonful of cayenne or black pepper were added, the prescription would prove much more prompt in its curative effects. The compound of molasses, hogs' lard and brimstone, can only act in their combined form as aperient and cooling; but if the cayenne should be added, a decided improvement so far as the swelling of the throat may be concerned, would be effected, it would then act as a stimulant upon the indurated glands of the throat, thus giving them resolution and enabling them to resume their wonted action, and take up the superabundant secretions, and thus restore a healthful condition to the affected parts.

Manning's Nursery.

North Salem is the location of the extensive and valuable Nursery of Mr. Robert Manning, whose fame as a scientific cultivator of Fruits is spreading not only throughout our own country, but Europe. Mr. Manning's Nursery contains upwards of *twenty thousand trees!* His collection of Pears is said to include a greater variety of distinct kinds, set as proof trees, than can be found in any one Nursery in America or Europe—even larger than that in the gardens of the

London Horticultural Society. He received in the spring of 1835, from Professor Van Mons, of Brussels, fifty-seven numbered kinds of Pears *unna med*, and this spring sixty one kinds more a part of which are growing on his grounds. Mr. J. M. Ives is also establishing a nursery in N. Salem—and Deacon Joshua Upham has commenced there the culture of the Mulberry Tree, having three acres of ground appropriated for that purpose.—*Register.*

Murrain among Cattle.

It is stated in a communication to Poulson's Daily Advertiser, that a cow belonging to a farmer of Kingsessing, Pa. died of the above disease, after one day's sickness; and that one of the two persons who assisted in skinning her cut a slight gash in his hand during the operation, which swelled up immediately and caused his death. Two pigs that had eaten of the flesh of the animal also died. The other man, the father of the one above named, had a small scratch or pimple on his hand, to which the poison from the animal was also communicated; his situation was considered critical by his attending physicians. The danger of contact with animals that have died of this disease, is no secret to those who are acquainted with it.

List of Payments

For the Farmer from July 8, to July 27, 1836.

For vol. 6.
Herbert Dayton.
A. B Field.
Tho's C. Hance.
Henry Jessup.
Geo. P[illegible]t.
Bennet C. Fitzhugh.
H. T. Williams.
Consider Warner.
Heman Chapin.
Moses A. Bunnell.
W. C. Dwight.

For vol. 5.
Adam Rafter.
Harry King.
David Brown.

From July, 1835, to July, 1836.
A. C. Haywood, Jr.
Almon Weeks.
Chapman Butler.
Thomas Weddle.
G. S. Chapman.
F. S. Hunt.
Geo. Nichols.
Joseph Sternberg.
W. Allen.

From July, 1836, to July, 1837.
J. J. Beardsley.
Nelson Cady.
Jas. H. Irvine.
O. C. Dickinson.
John Gerhart.

Last half of vols. 6 & 7.
Chas. A. Smith.
A. J. Caldwell.
Nathaniel Sellers.

For vols. 6 & 7.
N. V. Knickerbocker.
W. Seaman.

Last half vol. 6.
E. Blossom.
Isaac Pixley.
Dennis Sunderlin.
Alexander Patten.
E. Sunderlin.
Stephen Robinson.
C. Winsor.
Moses Randall.
John R. Murray, Jr.

Adonijah Tillotson, from July 1, 1835, to Jan. 1, 1838.

Shem Zook, from Jan. 1, 1836, to July 1, 1838.

Wm. K. Hulland, from Jan. 1, 1836, to July 1, 1837.

Elias Halsey, from April 1, 1836, to April 1, 1837.

ELECTION NOTICE.—*Sheriff's Office, Monroe County, Rochester, July* 23, 1836.—A general election is to be held in the county of Monroe, on the 7th, 8th and 9th days of November next, at which will be chosen the officers mentioned in the notice from the Secretary of State, of which a copy is annexed. ELIAS POND, Sheriff.

State of New-York, Secretary's Office, Albany, July 15, 1836.

Sir—I hereby give you notice that at the next general election of this state, to be held on the 7th 8th and 9th days of November next, a Governor and Lieutenant Governor are to be elected.

I also give you notice that a Senator is to be chosen in the Eighth Senate District in the place of John Griffin, whose term of office will expire on the last day of December next.

JOHN A. DIX, Secretary of State.

To the Sheriff of the county of Monroe.

N. B.—The Inspectors of Election in the several towns in your county will give notice of the election of a Representative to Congress from the 28th Congressional District, and that 42 Electors of President and Vice President are also to be chosen at the general election aforesaid. They will also give notice of the election of Members of Assembly, and for filling any vacancies in county offices which may exist.

july26

Green's Patent Straw Cutter.

A new Invention, on a new Principle.

THE subscribers having obtained the exclusive right of making and vending the above machine for a large district of country, take the liberty of informing the public, that they have associated themselves under the firm of JAMES D. SHULER & Co. and have erected in the village of Lockport, Niagara Co. an extensive machine-shop, for the construction of this useful and deservedly popular machine, where it may be had at any time, warranted of good materials and construction, and so confident are they that it will suit purchasers that if they are not satisfied on trial, they may return the machine and the money will be refunded. As this machine when examined will recommend itself, the ordinary course of presenting certificates (although hundreds might be obtained) will not be resorted to, yet the subscribers conceive it their duty to give the public the following description and notice taken of it by public constituted societies. Price at shop $30. All expenses of transportation, &c. additional.

J. S. SHULER.
J. D. SHULER.

Extract from the Report of the Committee of the Brighton (Mass.) Fair, on Experiments, Discoveries and Inventions.

The Committee on Experiments, Discoveries and Inventions, respectfully report: That in the exhibition of Machines and Implements immediately useful to the farmer, there were several which deserve the patronage of the society, among which are the Straw Cutting Machine, invented by Benj. Greene and introduced to use in this state by J. R. Newall. In this Machine, the cutting is performed by a number of knife edges, which are fixed upon a cylinder.—These are, in rotation, brought in contact with a leaden cylinder, which acts as a block upon which the straw is cut. As the straw is drawn in between the cutting edges and the leaden cylinder, no separate feeding rollers are required. The machine is compact in its form and operates with great rapidity, by the application of a small force. The committee were led by the very strong evidence in its favor, from persons who had used it for many months, to award to its introducer the premium of $10.

WM. PRESCOTT,
DANIEL TREADWELL,
RICHARD SULLIVAN, } *Committee.*

Brighton, Oct. 14. 1835.

From the Cultivator.

GREEN'S STRAW CUTTER.—This is the most simple and efficient machine of the kind that has yet been offered to the public. It is made very strong, and not liable to become injured, nor to get out of order. The apparatus consists principally of two cylinders; the upper one is of iron, having the requisite number of knives set in groves. All that is necessary in operating is to put in the straw, and turn the crank. After the straw is once cut, it can be put in again, and cut with increased rapidtty the second time.—More than double the quantity can be cut in the same space of time by this than by any other machine used in this section of the country.

I set a man at the crank, and with the hay close to the machine commenced feeding. With my utmost exertion I could not keep it regularly supplied. In five minutes, we cut *eleven bushels*, heaping measure, of hay. Had it been fed according to its power of execution, one fourth more would have been cut.—Had I used straw instead of hay the quautity cut in the above time, would have been as great, as it is more easy to supply the machine without interruption. It cuts corn stalks with rapidity, particularly small ones. The box is made large, and by putting in a good deal of hay at once, or by having it close to the machine, one person can feed it and turn the crank at the same time.

Extract from the report of the Committee of the Albany Fair on Farm Impliments, &c.

GREEN'S STRAW CUTTER, presented by C. N. Bennett, was the only implement of the kind exhibited. It is a hand crank power. It is 5 feet long by 2 1-2 feet wide. It has 12 knives, 8 inches, on a 4 inch cylinder, and works upon a cylinder or roller of cad—will deliver two bushels of cut hay per minute—feeds itself and may be managed by a stout boy. Price, highly finished, $30. The committee do not hesitate to reccommend this as the most complete and perfect implement of the kind which has come under their notice. They have awarded to Mr. Green, a beautiful cake basket valued at $15, for the invention of his valuable machine.

J. BUEL, *Chairman.*

REYNOLS & BATEHAM, at the Rochester Seedstore are appointed agents for the sale of the above machines where a constant supply will be kept on hand.

Rochester, July 24th 1836.

CLAIMS ON TRINITY CHURCH IN THE CITY OF NEW YORK—At a large meeting of the descendants of Anneke Jants, held in the court room at Poughkeepsie, on the first day of July current, the subscribers were appointed their committee and agents, and directed to publish the proceedings of that meeting, which were as follows:

At a numerous meeting of the descendants of Anneke Jants, held at Poughkeepsie in Dutchess county, pursuant to public notice, on the first day of July 1836, Judge Trumpbour, of Saugerties in Ulster county, was called to the chair, and John Van Buren, esq. of Kingston in said county, was appointed secretary.

Mr. George Sullivan, of counsel for the heirs, being called upon to inform the meeting of the actual state and prospects of their claims, made a lucid and concise exposition of the rights of the claimants, the proceedings which had thus far been had in chancery, and presented a history of the claim from its earliest stages.

On motion it was unanimously resolved, that the descendants of Anneke Jants do unite in the prosecution of their claims against the Trinity Church of the city of New York, and persevere in it until the final decision of the highest tribunal of the state shall award them their rights, or decide that these are lost beyond recovery; and that a committee be appointed to take such measures for carrying into effect this resolution, as they may deem expedient.

Resolved, That this committee consist of three persons, and that Judge Trumpbour of Saugerties, Ulser county, Peter Oakley, esq. of Fishkill, Dutchess county, and John L. Bogardus, esq. of the city of New York, be said committee.

Resolved That said committee have full powers to carry out the objects of the foregoing resolutions, in accordance with the provisions of the agreement of the 10th of July 1830.

An agreement was drawn up and annexed to the original agreement providing for the raising of funds for the prosecution of the suit instituted by their counsel, Mr. Sullivan, and such other suits as he and said committee may deem expedient in the premises.

Resolved, That said committee have power to call meetings of the descendants of Anneke Jants, at such times and places as may be convenient, by public notice or otherwise.

Resolved, That these proceedings be published in the newspapers of this state, with a view to apprise all who are interested in these claims of the course intended to be pursued.

Jacob Trumpbour, Ch'n.
John Van Buren, Sec'y.

The subscribers, in further compliance with the wishes of the heirs assembled on this occasion, earnestly request, that all persons who are descendants from Anneke Jants, or connected by marriage with her descendants, will forward in writing their names and places of residence and their respective pedigrees, so that they may receive the circulars which the committee are preparing to send them. It has become important that all should specify, as soon as may be, their respective descents, so that their respective shares or interest in the property may be ascertained. These communications may be directed to either of the subscribers, who in return will send information from time to time, of the progress of the prosecution, its prospects, and the means relied upon for success. New York, July 7, 1836.

JACOB TRUMPBOUR
Saugerties, Ulster county.
PETER OAKLEY,
Fishkill, Dutchess county.
JOHN L. BOGARDUS,
General Land Office, 3 Clinton Hall.
Beekman street, New York.

july 18-afr7t

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Greece, *Monroe co. N. Y. Sept.* 13, 1836.

Chilian Cattle.

The following account of Chilian herdsmen and their herds, is from "Travels in Chili and Peru, and on the River Amazon, in the years 1827—1832, by Von Edward Poeppig." The number of cattle owned by a single individual in that country, contrasts strongly with what would here be counted a numerous herd. The extract, though brief, is full of interest, not only to the farmer, but to the general reader.

"The breeding of cattle is, for two reasons, the branch of rural economy which is preferred by the Chilian to every other; in the first place it gratifies an inclination for a wild and independent life, and his love of every thing that is adventurous and bold, and requires violent, not uniform, exertions. The best educated men of the larger towns, on an occasional visit to the country, take pleasure in pursuing the cattle, and participating in the occupation in which the mountain herdsman (vaquero) is engaged. * * * The Chilian, especially of the lower class, possesses a wild energy of character, which was misunderstood by the former government, or at least not duly employed, and which inclines him to such occupations as disqualify him, and probably will do for a long time to come, for a uniform and sedentary employment. A second perhaps still more important reason is, that, since the expulsion of the Spaniards, and the introduction of a free system of trade, the breeding of cattle has proved more profitable than agriculture. * * * The number of animals which a single landowner possesses, would often appear extravagant to a European ear. They speak with great indifference of herds of 1000 or 1500, and consider a man by no means rich who has three times that number. The haciendas in the central provinces often have from 10,000 to 15,000, and many even 20,000, and the number of smaller estates which have from 4 to 5000 is very great. Since the revolution the value of this species of property has risen in an extraordinary degree; and the owners are very far from doing as they did in former times, killing the animal for the sake of his hide, and leaving the flesh to be devoured by the condors. * * * This branch of Chilian economy is however not without risks, which are not indeed frequent, but cause astonishing destruction. In the years 1829 to 1832, a vast number of cattle perished in consequence of an unexampled drouth, which extended over all the provinces of Central and Northern Chili. It appears from an official statement, that in the year 1831 alone, 515,326 head of cattle died of hunger in the provinces of Coquimbo and Copiapo; of these about 77,000 were horned cattle, 10,000 horses, 23,000 sheep, 211,000 goats, &c. Though the number may be rather exaggerated, because the land-owners wished to make their loss appear as considerable as possible, still the injury was very great."

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The Ants of the Lower Andes.

The following extract is from the same work:

"The lower classes of the animal kingdom are far more numerous, but also far more hostile, and this is particularly the case with the insects. You are annoyed and persecuted by them in every thing you do, and are daily obliged to exert your ingenuity to discover means of encountering them, but are too often obliged to acknowledge, with vexation, that the acuteness of the human understanding is no match for the instinct of these little animals. After some observation, I was confounded at the great number of the species of the ant, for instance; for there is no part of the level country of Maynas where the ants are so numerous as in the Lower Andes; and even the North of Brazil, though filled with them, is a paradise in this respect, when compared with the mountains of Cuchero. From the size of an inch to half a line in length, of all colors between yellow and black, infinitely differing in their activity, places of abode and manners, the ants of this country alone would engage the whole attention of an active entomologist for years together. Merely in the huts, we distinguish without any difficulty seven different species, as the most troublesome inmates—animals that are seldom met with in the forest, far from the abodes of man, but, on the contrary, indefatigably pursue and accompany him in all his works, like certain equally mischievous plants, which suddenly appear in a newly planted field in the midst of the wilderness, and hinder the cultivation, though they had never been seen there before. How many species there may be in the forest is a question, which any one who has visited a tropical country will not be bold enough to answer. If I state here, that, after a very careful enumeration, six and twenty species of ants are found in the woods about Pampayaco, I will by no means affirm that this number is complete. Every group of plants has particular species, and many trees are even the exclusive abode of a kind that does not occur any where else. With the exception of a very few kinds, a superficial observation makes us acquainted with the ants merely as mischievous and troublesome animals; for, if on a longer residence, and daily wandering in the forests, we perceive that these countless animals are, in many respects, of service, still it is doubtful whether the advantage is not more than counterbalanced by the mischief which they do. One of the indubitable very useful kinds, and which does not attack man unless provoked, is the Peruvian wandering ant, called in the language of the Incas, guagna-miague; a name which is commonly, and very justly, translated *Que hace llorar los ojos*,—"which makes the eyes water;" for, if their bite gives pain for a few minutes only, he who imprudently meddles with them is bitten by so many at once, that he finds it no joke. It is not known where this courageous insect lives, for it comes in endless swarms from the wilderness, where it again vanishes. It is generally seen only in the rainy season, and it can scarcely be guessed in what direction it will come; but it does no injury to the plantations, and destroys innumerable pernicious insects of other kinds, and even amphibious animals and small quadrupeds. The broad columns go forward disregarding every obstacle; the millions march close together in a swarm that takes hours in passing; while on both sides, the warriors, distinguished by their size and color, move busily backward and forward, ready for defence, and likewise looking for and attacking animals which are so unfortunate as to be unable to escape, either by force or by rapid flight. If they approach a house, the owner readily opens every part and goes out of their way; for all noxious vermin that may have taken up their abode in the roof of palm leaves, the insects and larvæ which do much more damage than one is aware of, are all destroyed or compelled to seek safety in flight. The most secret recesses of the huts do not escape their search, and the animal that awaits for their arrival is infallibly lost. They even, as the natives affirm, overpower large snakes, for the warriors quickly form a circle round the reptile, while basking in the sun, which on perceiving its enemies endeavors to escape, but in vain; for six or more of the enemy have fixed themselves upon it, and while the tortured animal endeavors to release itself by a single turn, the number of its foes is increased a hundred fold; thousands of the smaller ants from the main column hasten up, and in spite of the writhings of the snake, wound it in innumerable places, and in a few hours nothing remains of it but a clean skeleton."

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The Coca.

The Foreign Quarterly Review, in which we find the preceding extracts, gives the following abridgment of Dr. Poeppig's account of the Coca:

The author having mentioned the coca plantation, gives a very long account of that remarkable plant, which has now become an indispensable necessary of life among the Indians of the Andes, and, as an article very extensively cultivated, deserves great attention. The coca (*Erythroxylon Coca*, Lam.) is a bush from six to eight feet high, somewhat like the blackthorn, which it resembles in its numerous small white blossoms, and the lively bright green of the leaves. These leaves, which are gathered and carefully dried, are an object of brisk trade, and the use of them is as old as the first knowledge of the history of Peru. It is a stimulant, which acts upon the nerves in the same manner as opium. Unhappily, the use of it has degenerated into a vice which seems incurable. The Indians of America, especially those of the Peruvian Andes, notwithstanding the civilization which surrounds them, have a vague sense of their own incurable deficiency, and hence they are eager to relieve themselves, by violent excitements, from such melancholy feelings. This accounts, not only for the use of the coca, but also for the boundless love of spirituous liquors, which possesses scarcely any other people in the world in an equal degree. To the Peruvian, the coca is the source of the highest gratification; for under its influence his usual melancholy leaves him, and his dull imagination presents him with images which he never enjoys in his usual state of mind. If it cannot entirely produce the terrible feeling of overexcitement that opium does, yet it reduces the person who uses it to a similar state, which is doubly dangerous, because, though less in degree, it is of far longer duration. This effect is not perceived until after continued observation; for a new comer is surprised indeed at the many disorders to which the men of many classes of the people are subject to in Peru, but is very far from ascribing them to the coca. A look at a determined coquero gives the solution of the phenomenon; unfit for all the serious concerns of life, such a one is a slave to his passion, even more than the drunkard, and exposes himself to far greater dangers to gratify his propensity. As the magic power of the herb cannot be entirely felt, till the usual concerns of daily life, or the interruptions of social intercourse, cease to employ the mental powers, the genuine coquero retires into solitary darkness or the wilderness, as soon as his longing for this intoxication becomes irresistible. When night, which is doubly awful in the gloomy forest, covers the earth, he remains stretched out under the tree which he has chosen; without the protection of a fire near him, he listens with indifference to the growling of the ounce; and when, amid peals of thunder, clouds pour down torrents of rain, or the fury of the hurricane uproots the oldest trees, he regards it not. In two days he generally returns, pale, trembling, his eyes sunk, a fearful picture of unnatural indulgence. He who has once been seized with this passion, and is placed in a situation that favors its development, is a lost man.

The author heard in Peru truly deplorable accounts of young men of good families, who, in an accidental visit to the woods, began to use coca to pass away the time, soon acquired a relish for it, and from that moment were lost to the civilized world, and, as if under some malignant spell, refused to return to the towns. We are told how the relations at length discovered the fugitive in some remote Indian village, and, in spite of his tears, dragged him back to his home But these unhappy persons were as fond of living in the wilderness, as averse to the more orderly mode of life in the towns; for public opinion condemns the white coquero, as it does an incorrigible drunkard among us. They, therefore, take the earliest opportunity of escaping to the woods, where, degraded, unworthy of the white complexion, the stamp of natural superiority, and becoming half savages, they fall victims to premature death, through the immoderate use of this intoxicating herb.

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